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**AN ANALYSIS OF THE LEGAL AND INSTITUTIONAL
FRAMEWORK IN ADMINISTRATIVE LAW REGULATING
AIR POLLUTION IN IRAQ**



ASMAA ABDULKADHIM MAHDI

UUM
Universiti Utara Malaysia

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**AN ANALYSIS OF THE LEGAL AND INSTITUTIONAL
FRAMEWORK IN ADMINISTRATIVE LAW REGULATING
AIR POLLUTION IN IRAQ**

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**A Thesis submitted to Ghazali Shafie Graduate School of Government in
fulfilment of the requirements for the Doctor of Philosophy, Universiti Utara
Malaysia**



Kolej Undang-Undang, Kerajaan dan Pengajian Antarabangsa
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ABSTRACT

Iraq suffers from high degree of air pollution due to industrial development taking place in the country. Air pollution represents a major challenge both today and in the future. The problem is constantly increasing due to growing human needs for transportation, energy, industry, etc. To address the air pollution issues in Iraq, the government has passed some important environmental legislations. These legislations consist of mechanisms allowing the administration to control and maintain air quality. Unfortunately, several obstacles have been identified that affect negatively on these mechanisms making them unable to maintain the air quality. The objectives of the study are to examine administrative and legal mechanisms to control air pollution issues in Iraq, to examine the weakness of these mechanisms in protecting the environment against air pollution and to compare the administrative and legal mechanisms of Iraq with that of the United Kingdom and Malaysia so as to draw relevant lessons. This study is a qualitative research using a case study approach. In-depth interview method was used to generate data from stakeholders including public officials of the Ministry of Environment, legal experts, academics, lawyers, doctors and selected victims of air pollution. Observations were also carried out at the selected locations of air pollution. It also undertook doctrinal legal research to support the findings. Content analysis was done on official reports and statutes as primary sources supported with secondary sources in the form of textbooks, government publications, academic journals, newspaper articles and internet sources. This study found that the laws and policies have not been properly enforced due to various problems including insufficiency, non-implementation, non-coordination, lack of environmental expertise, weak execution and lack of environmental awareness. This study suggests a review of the provisions of the environmental laws in Iraq regarding air protection and where applicable draw lessons from the comparative analysis to offer solutions to these issues. These recommendations should be taken seriously by the Iraqi legislature and stakeholders in addressing the administrative legal and policy mechanisms associated with air pollution in Iraq.

Keywords: Air Pollution, Environmental Legislations, Administrative Legal Mechanisms, Iraq

ABSTRAK

Iraq mengalami tahap pencemaran udara yang tinggi disebabkan oleh pembangunan perindustrian di dalam negara. Pencemaran udara merupakan cabaran utama pada hari ini serta pada masa hadapan. Masalah ini terus meningkat disebabkan oleh peningkatan keperluan manusia dari segi pengangkutan, tenaga, industri, dan lain-lain. Bagi menangani masalah pencemaran udara di Iraq, kerajaan telah meluluskan beberapa undang-undang penting berkaitan alam sekitar. Undang-undang ini terdiri daripada mekanisme yang membolehkan pihak pentadbiran untuk mengawal dan mengekalkan kualiti udara. Malangnya, banyak halangan telah dikenal pasti yang boleh memberi kesan negatif terhadap mekanisme ini yang menyebabkan mereka tidak dapat mengekalkan kualiti udara. Objektif kajian ini ialah untuk mengkaji mekanisme undang-undang pentadbiran bagi mengawal isu pencemaran udara di Iraq, mengkaji kelemahan mekanisme ini dalam melindungi alam sekitar daripada pencemaran udara dan membandingkan mekanisme undang-undang pentadbiran Iraq dengan United Kingdom dan Malaysia bagi mendapatkan pedoman yang relevan. Kajian ini merupakan kajian kualitatif dengan cara pendekatan kajian kes. Kaedah temubual mendalam telah digunakan untuk menjana data dari pelbagai pihak berkepentingan termasuk pegawai awam Kementerian Alam Sekitar, pakar undang-undang, ahli akademik, peguam, doktor dan beberapa mangsa pencemaran udara yang dipilih. Pemerhatian juga dilakukan di lokasi pencemaran udara yang dipilih. Kajian ini juga menjalankan penyelidikan undang-undang doktrin untuk menyokong dapatan kajian. Analisis kandungannya pula menggunakan laporan dan undang-undang rasmi sebagai sumber utama yang disokong oleh sumber sekunder dalam bentuk buku teks, penerbitan kerajaan, jurnal akademik, keratan akhbar dan sumber internet. Kajian ini mendapati bahawa undang-undang dan dasar-dasar tidak dilaksanakan dengan baik disebabkan oleh pelbagai masalah termasuk kekurangan, tiada pelaksanaan, tiada penyelarasan, kurangnya kepakaran alam sekitar, pelaksanaan yang lemah dan kurangnya kesedaran terhadap alam sekitar. Kajian ini mencadangkan perlunya semakan terhadap peruntukan di dalam undang-undang alam sekitar di Iraq mengenai isu-isu perlindungan udara serta pengajaran yang diambil berdasarkan analisis perbandingan yang menunjukkan penyelesaian kepada isu-isu ini. Cadangan ini perlu diambil serius oleh badan perundangan Iraq dan pihak berkepentingan dalam menangani mekanisme undang-undang dan dasar pentadbiran yang berkaitan dengan pencemaran udara di Iraq.

Kata Kunci: Pencemaran Udara, Undang-undang Alam Sekitar, Mekanisme Undang-undang Pentadbiran, Iraq

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DECLARATION

I hereby declare that this thesis is based on my original work except for quotations and citations which have been aptly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degrees at Universiti Utara Malaysia or other institutions.



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United Kingdom

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Malaysia

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LIST OF ABBREVIATIONS

ACS	American Cancer Society
AQMA	Air Quality Management Areas
BCM	Billion Cubic Meters
CAA	Clean Air Act
Cd	Cadmium
CH₄	Methane
CO	Carbon Oxide
CO₂	Carbon Dioxide
COI	Committee of Inspection
COP2	Second Conference of Parties
Cu	Copper
DOE	Department of the Environment
EEMP	Emergency Environment Management Project
EIA	Environmental Impact Assessment
EM	Environmental Management
EPC	Environment Protection Centre
EPI	Environmental Performance Index
EPIC	Environmental Protection and Improvement Council
EPID	Environmental Protection and Improvement Directorate
EPSS	Environmental Planning and Studies Section
EQA	Environmental Quality Act
EUETS	EU Emission Trading Scheme
Fe	Iron
GDP	Gross Domestic Product
GHG	Green House Gases
GIB	Green Investment Bank
HCs	Hydrogen Carbons
HIV	Human Immunodeficiency Virus
IAEA	International Atomic Energy Agency

IARC	International Agency for Research on Cancer
ID	Iraqi Dinar
IED	Industrial Emissions Directive
IMET	Italy's Ministry for the Environment and Territory
IOCs	International Oil Companies
IPC	Integrated Pollution Control
IPCC	Intergovernmental Panel on Climate Change
IPPC	Integrated Pollution Prevention and Control
ITF	Iraq Trust Fund
IUCN	International Union for the Conservation of Nature
MEAS	Multilateral Environment Agreements
MMS	Malaysian Meteorological Service
Mn	Manganese
MNRE	Ministry of Natural Resources and the Environment
MOE	Ministry of Environment
MOHE	Ministry of Health and Environment
MOSTE	Ministry of Science, Technology and Environment
N₂O	Nitrous Oxide
NAAQS	National Ambient Air Quality Standard
NC	National Communication
NDC	Nationally Determined Contributions
Ni	Nickel
NO₂	Nitro Dioxide
NO_x	Nitrogen Oxides
O₃	Ozone
ODS	Ozone Depleting Substances
OPEC	Organization of Petroleum Exporting Countries
Pb	Lead
PSCs	Public Service Companies
PSD	Prevention of Significant Deterioration
PSI	Pollution Standards Index
RCEP	Royal Commission on Environmental Pollution

SO₂	Sulfur Dioxide
TOCs	Total Organic Compounds
TRO	Traffic Regulation Orders
TSCs	Technical Service Contracts
UN	United Nations
UNAMI	United Nations Assistance Mission for Iraq
UNCED	UN Conference on Environment and Development
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Economic Planning
UNEP	United Nations Environment Program
USAID	US Agency for International Development
VOCs	Volatile Organic Compounds
WHO	World Health Organization
WWF	World Wildlife Fund
Zn	Zinc



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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

There are basically two types of legal rules, private law and public law. Private law involves the relationship among individuals and also private legal entities. Examples of private law would include contract law, family law, company law, etc. Public law involves the relationship between governments or between the government and legal entities or individuals. Examples of public law would include public international law, constitutional law, administrative law, financial law.¹

The function of administrative law is to regulate public administration according to the organization structure and functions for the benefit of the public through the use of the special privileges under the rules of administrative law. Therefore, administrative law is fundamentally different from private law due to the dissimilarity in legal relationships that governs and of the methods used by the administrative authority to perform its duties.²

¹Peter Cane, *Administrative Law (Clarendon Law Series)*, 5 ed. (New York: Oxford University Press, 2011), 3-4.

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5- Interviews

a- Interviewees of case study I (Baghdad)

i-Environmental staff

Mr. Ahmad Faisal
Director of Air Quality Department.

Miss. Rasha Fadel
Associate Director of Air Quality Department. MOE.

Mr. Mohamed Kamel
Officer on Department of Air quality in EOM.

Mr. Ahmed Gomaa
Employee

Mr. Saher Jalil
Environmental Officer in EOM.

Ms. Shaimaa salim
Inspector

Mr. Ayman Mohammed
Director of Legal Department.

ii-Doctors

Dr. Ali Abu Tahin
President of the Arab Medical Board in Iraq.

Dr. Israa Abdulrahman
Head of the Pathological Analysis Department at the Medical City Hospital in
Baghdad

Dr. Haider Muzaffar
Doctor in Medical City Hospital- Department of Respiratory Diseases.

Dr. Ashwaq Al - Ammar
Doctor in Medical City Hospital- Department of Respiratory Diseases.

iii- People affected by air pollution

Wadad Obaid
Damaged by air pollution

Ms. Hana Laith
Victim's wife

Mr.Silwan Ghazi
Witness

iv- Environmental experts and academics

Dr. Haidar Fawzi
Assistant Professor of Law

Mr. Emad Kazem
Member of the Committee of Environmental Experts.

Mr. Raed Al Haddad
Inspector General in Integrity Commission.

Dr. Amer Abdul Rahman
Senior Lecturer

Iqbal Abdel Abbas
Lecturer

b- Interviewees of case study II (Babil)

i-Environmental staff

Ms. Saba Abdel Reda
Inspector in Environment Department

Miss. Zeina Khaled
Officer on Department of Air quality in EOM.

Mr. Salim Khudair
Director of Financial Department

Mr. Salah Maitham
Director of Legal Department.

iii-Doctors

Dr. Muzaffar Abdul Majeed
Doctor in Department of respiratory diseases

Doctor in Department of lung function
Dr. Amir Kazem

Dr. Jassem Abdel Basset
Doctor in Department of respiratory diseases

Dr. Howrah Ahmed
Doctor in Department of respiratory diseases

iii- People affected by air pollution

Mr. Hossam Abbas
Damaged by air pollution

Mr. Khalid Mohammed
Patient

Mr. Salim Ahmad
Patient

iv- Environmental experts and academics

Dr. Abdul Rasul
Dean of the Faculty of Law, University of Babylon.

Dr. Hasan abieai
Head of the Department Respiratory Diseases, Hilal Education Hospital

Dr. Ismail Al-Badairi Professor of Administrative Law
Academic at University of Babylon.

Assistant Professor Mansour Hadi
Senior Lecturer in Law

Assistant Professor. Osama Al-Hamer
Academic researcher/ University of Babylon

Dr. Hala Kamel
Senior Lecturer

Dr.Aimen Mohammed
Academic at University of Babylon.

Mr. Shaukat Samer
academic researcher/ University of Babylon

Mr. Nafie Tiklif,
Academic at University of Babylon.

Mr. Waleed Assem
Al Noor NGO.

Tariq Fadel
Lawyer

APPENDIX (A)

INFORMED CONSENT FORM

Dear participant

My name is Asmaa Abdulkadhim, a PhD candidate at the College of Law, Universiti Utara Malaysia (Northern University of Malaysia).

Firstly, I would like to express my heartfelt appreciation and thank you for volunteering to participate in this interview which is an essential part of my PhD research work entitled “The Governance of the Iraqi Environment Against Air Pollution: An Administrative Law Perspective.” During the course of the interview, the following points will highlight the administrative and legal mechanisms that are used to tackle the issues of air pollution in Iraq and to explain why they are not able to resolve the air pollution problem:

Soundly- The researcher would like to seek your kind permission to be interviewed. Your participation in this research is absolutely voluntary and the interview may be audio or video recorded subject to you giving prior consent.

Thirdly- The venue and time for the interview shall be determined by your good self and shall be at your convenience. It is estimated that the interview will take about one hour.

Fourthly- You may choose not to take part in the interview and in the event you choose to take part in the interview, you are free to withdraw from being interviewed at any time and without having to give any reasons for the withdrawal.

Fifthly- The identity of all participants will be kept confidential upon request and all information collected during the interview shall be used in the study.

Sixthly- If you need further clarifications on the above-mentioned matter or need more information, the researcher can be contacted through the following:

Mobile phone no. : 0773 235 4811; and

Email address: asmaa.abd84@yahoo.com

Name _____.

Occupation _____.

Address _____.

Phone No _____.

Signature and date _____.

Appendix (B) / Questions of Interview

(1) Questions to staff of MOE

No.	Questions	رقم السؤال
1.	What are the administrative and legal mechanisms practised in Iraq in governing environment against air pollution?	1 ماهي الاليات الادارية والقانونية المستخدمة في العراق لمعالجة تلوث الهواء؟
2.	Are these mechanisms adequate to deal with air pollution? If not adequate, why it is not adequate? How to make it adequate?	2 هل هذه الاليات الكافية لمعالجة تلوث الهواء؟ اذ كانت غير كافية، لماذا؟ وكيف يمكن جعلها كافية؟
3.	Are there any weaknesses and issues in the administrative and legal mechanisms used to deal with air pollution? If yes, what are the weaknesses and issues? Why and how the weaknesses and issues occur? How to improve the mechanisms?	3 هل يوجد ضعف في هذه الاليات؟ وكيف يحدث؟ ولماذا؟ وكيف يمكن تحسين هذه الاليات؟
4.	Are the weaknesses and issues due to the inadequacies of enforcement? If yes, why and how it occurs? How to improve it?	4 هل هذا الضعف في عوفية تنفيذ هذه الاليات؟ اذ كانت الاسباب لعدم كفاية التنفيذ؟ وكيف يمكن تحسين ذلك؟
5.	Do you think rewards and incentives given by the administration to its employees and owners/developers of environmentally friendly projects have positive effects in governing environment against air pollution? Is it adequate? If not adequate, why it is not adequate? How to improve it?	5 هل تعتقد ان المكافآت التي تعطى للموظفين ولصاحب المشاريع الصديقة للبيئة لها دور ايجابي في الحد من تلوث الهواء؟ وهل هي كافية؟ اذ كانت غير كافية، لماذا؟ وكيف يمكن ان تجعلها كافية؟
6.	Do you think the legal administrative penalties, punishment and sentences that the administration meted out to the environmental violators adequate to the extent of preventing the recurrences of the environmental wrongful acts? If inadequate, why? How to improve it?	6 هل تعتقد ان العقوبات التي تفرض على المخالفين كافية لمنع حدوث المخالفات؟ اذ كانت غير كافية، لماذا؟ وكيف يمكن ان تجعلها كافية؟
7.	Are there any new government initiatives and concrete attempts to improve these mechanisms in the governance of environment against air pollutions? Are the initiatives adequate? If not adequate, why it is inadequate? How to make it adequate?	7 هل توجد مبادرات حكومية لتحسين هذه الاليات؟ وهل هي كافية؟ اذ كانت غير كافية، لاي الاسباب؟ وكيف يمكن جعلها كافية؟
8.	Is the law in Iraq adequate and able to deal with air pollution? If not adequate and not able, why? How to improve it?	8 هل القانون في العراق قادر على التعامل مع مشكلة تلوث الهواء؟ اذا كان غير قادر، لماذا؟ وكيف يمكن تحسينه؟

(2) Questions to Doctors

No. Questions

رقم السؤال

1. What are the causes of lung cancer?
Does air pollution cause lung cancer?
1 ماهي السبب التي يتودي الى سرطان
الرئة؟ ولماذا له علق بتلوث الهواء؟
2. What are other diseases to human caused
by air pollution? Is it serious?
2 ماهي الامراض الاخرى التي يسببها تلوث
الهواء؟ وهل هي خطيرة؟
3. Are the lung cancer patients live in air
polluted places?
3 هل مرضى سرطان الرئة في مجتمعات
في اماكن ممتلئة من مصانع تلوث الهواء؟
4. What are the remedies (preventive and
curative measures, legal and medical
treatments) to the lung cancer and other
diseases patients due to air pollution? Are
the remedies adequate? If not adequate,
why it is not adequate? How to make it
adequate?
4 ماهي العلاجات التي ان روية والطبية
والعلاجات الاخرى التي يتقدم بها مرضى
السرطان والامراض الاخرى سبب تلوث
الهواء؟ هل هي كافية؟ اذا كانت غير كافية ،
لماذا؟ وكيف يمكن جعلها كافية؟
5. Are the preventive and curative laws
adequately protecting the rights and
interests of people against any harm due
to air pollution? If not adequate? Why the
preventive and curative laws are not
adequate? How to make it adequate?
5 هل القوانين الوقائية والعلاجية للموجودة في
البلد كافية لحماية الحقوق والمصالح من
تلوث الهواء؟ اذا كانت غير كافية ، لماذا
يكون جعلها كافية؟
6. Do the patients have adequate awareness
and knowledge of the negative impacts
brought about by air pollution? If not,
why? How to improve?
6 هل يمتلك المرضى الوعي الكافي والمعرفة
تجاه اثار السلبية لتلوث الهواء؟ اذا ، لا ،
لماذا؟ وكيف يمكن ان تحسن ذلك؟
7. Are there any weaknesses in the methods
used by the administrative and legal
mechanisms to deal with air pollution?
Why the weaknesses exist? How to
improve?
7 هل يوجد ضعف في هذه الاليات الادارية
القانونية التي يستخدمها الموظفون في
التعامل مع تلوث الهواء؟ ولماذا؟ وكيف
يمكن ان تحسن هذه الاليات؟
8. Are there any weaknesses in the
environmental laws against air pollution?
Why the weaknesses exist? How to
improve?
8 هل يوجد ضعف في هذه القوانين البيئية ضد
تلوث الهواء؟ ولماذا؟ وكيف يمكن ان تحسن
هذه القوانين؟

(3) Questions to Lung Cancer and Other Diseases Patients Caused By Air Pollution

No.	Questions	رقم للسؤال
1.	Do you live in a place close to the sources of air pollution? If yes, do you think that the cause of your disease is due to the air pollution?	1 هل تعيش في مكان قريب من مصدرا تلوث لواء؟ اذا كنت كذلك، هل تعرف بالامراض التي يسببها تلوث الاء؟
2.	Do you know the causes of air pollution?	2 هل تعرف اسباب تلوث الاء؟
3.	What are your grievances and injuries? Whether your grievances and injuries are fully addressed by the administration and the law? If not fully addressed, why? How to improve?	3 ما هي مظللكم وإصابتكم؟ وهل مظللكم وإصابتكم عالجها الإدارة الى وإن وينش كل كالم؟ إذا لم يتم وأوليه كل كلام فلماذا؟ ينبغي تحسرين؟
4.	Do you think that the administration who is responsible to govern environment against air pollution has duly carried out their duties to prevent occurrences of air pollution and its consequences?	4 هل تعتقد أن الإدارة المسؤولة عن حماية البيئة قد تمتثل لواجباتها في الحد من تلوث الاء ومنع حدوث تلوث الاء وتلحقه؟
5.	Does the administration educate and inform the people about the danger of air pollution to human health?	5 هل تقوم الإدارة بتثقيف وإعلام الناس بخطر تلوث الاء على صحة الإنسان؟
6.	Are the preventive and curative measures/remedies taken by the administration adequate to prevent air pollution and its consequences? If inadequate, why? How to improve this?	6 هل التدابير الوقائية والعلاجية التي تتخذها الإدارة لمنع تلوث الاء وتلحقه؟ إذا كان غير كاف لمماذا؟ ينبغي تحسرين هذا؟
7.	Is the law adequate to prevent air pollution? If inadequate, why? How to improve the law?	7 هل القوانين كافية لمنع تلوث الاء؟ إذا كان غير كاف لمماذا؟ ينبغي تحسرين القوانين؟
8.	Are the medical treatment and the medication you received adequate? If not adequate, why? How to improve this?	8 هل العلاج الطبي والأدوية التي تلقيتها كافية؟ إذا لم تكن كافية لمماذا؟ ينبغي تحسرين هذا؟
9.	Is your right as a patient to get medical treatment and access to justice fully protected by the government and the law? If not, why? How to improve	9 هل حقوقكم كمرضى في الحصول على العلاج الطبي والوصول إلى العدالة محمي تتماما من قبل الحكومة والى إن وور؟ إذا لم يكن كذلك، لمماذا؟ ينبغي تحسرين؟
10.	Do you think there are corrupt practices in the administration? If exist, why? How to improve?	10 هل تعتقد أن هناك ممارسات فاسدة في الإدارة؟ إذا كان موجودا لمماذا؟ ينبغي تحسرين؟

(4) Questions to other group (Academics, Environmental Expertises, and Lawyers)

No.	Questions	رقم للسؤال
1.	What are the causes of air pollution?	1 ماهي بلباسب تلوث الهواء؟
2.	What are the administrative and legal mechanisms against air pollution in Iraq?	2 ماهي الاليات الادارية والقانونية المبنيه خدمه سي العراق لمواجهة تلوث الهواء؟
3.	Are there any weaknesses in the administrative legal mechanism in dealing with air pollution?	3 هل يوجد ضعف في هذه الاليات المبنيه خدمه سي العراق لمواجهة تلوث الهواء؟
4.	Are there any weaknesses in the environmental law against air pollution?	4 هل يوجد ضعف في القوانين البيئية المبنيه خدمه سي العراق لمواجهة تلوث الهواء؟
5.	Are there any corrupt practices in the administrative legal mechanisms?	5 هل يوجد فساد من قبل الموظفين الذين يمارسون هذه الاليات؟
6.	Is the lack of knowledge and awareness on the harms due to air pollution contributed to the increase risk of air pollution?	6 نقص المعرفة والوعي بالمخاطر الناتجة عن تلوث الهواء ساهم في زيادة خطر تلوث الهواء؟
7.	Are there any government initiatives to improve these mechanisms to prevent air pollution?	7 هل توجد مبادرات حكومية لتحسين هذه الاليات؟
8.	How can the administrative and legal mechanisms be improved in dealing with air pollution?	8 كيف يمكن تحسين الاليات الادارية والقانونية المبنيه خدمه سي العراق لمواجهة تلوث الهواء؟
9.	What can Iraq learn from other countries in term of better governing environment against air pollution and providing adequate remedies to air pollution victims?	9 كيف يمكن للعراق ان يتعلم من تجارب الدول التي استطاعت ان تسيطر على تلوث الهواء؟

Appendix (C)

Background of participants' information in the field of study

Case Study I (Baghdad)

Categories	Number of respondents	Date of interview	Place of interview	Occupation	Status
Staff of MOE	1	14, February 2016.	MOE, Al-Waziriyah, Baghdad	Administrator	Director of Air Quality Department
	2	14, February, 2016	MOE, Al-Waziriyah, Baghdad	Environmental Officer	Officer on Department of Air quality in EOM
	3	14, February, 2016.	MOE, Al-Waziriyah, Baghdad	Environmental staff,	Employee
	4	15, February 2016.	MOE, Al-Waziriyah, Baghdad	Environmental Officer	Environmental Officer in EOM
	5	24, February, 2016	MOE, Al-Waziriyah, Baghdad	Administrator	Associate Director of Air Quality Department. MOE
	6	25, February, 2016.	MOE, Al-Karrada, Baghdad	Administrator	Inspector
	7	25, February, 2016.	MOE, Al-Karrada, Baghdad	Administrator	Director of Legal Department
Doctors	8	16, February, 2016.	Medical City Hospital in Baghdad	Specialised Physician	Head of the Pathological Analysis Department at the Medical City Hospital in Baghdad
	9	16, February, 2016.	Medical City Hospital in Baghdad	Specialised Physician	Doctor in Medical City Hospital- Department of Respiratory Diseases
	10	17, February, 2016.	Medical City Hospital in Baghdad	Doctor	Doctor in Medical City Hospital- Department of Respiratory Diseases

	11	17, February, 2016.	Baghdad	Professor Doctor	President of the Arab Medical Board in Iraq
People Affected by Air Pollution	12	16, February, 2016.	Al- Scan, Baghdad	Resident	Damaged by air Pollution
	13	18, February, 2016.	Karkh in Baghdad	Affected / Her husband died	Victim's Wife
	14	1, March, 2016	Baghdad	Region's Population	Witness
Other respondents	15	17, February, 2016	College of Law, Baghdad	Legal Academic	Lecturer
	16	21, February, 2016	College of Law, Baghdad	Legal Academic	Senior Lecturer
	17	21, February, 2016	Baghdad	Legal Academic	Assistant Professor of Law
	18	22 February, 2016	Al-Waziriyah, Baghdad	Environmental Legal Expert	Member of the Committee of Environmental Experts
	19	23 February, 2016	Al-Karrada, Baghdad	Environmental Expert	Inspector General in Integrity Commission

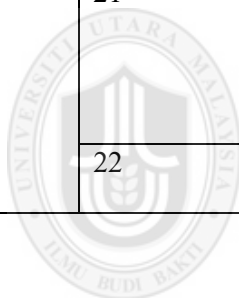
Appendix (D)

Background of participants' information in the field of study

Case Study II (Babil)

Categories	Number of respondents	Date of interview	Place of interview	Occupation	Status
Staff of MOE	1	28, February, 2016	MOE, Babil	Environmental Officer	Environmental Staff-Financial Department
	2	28, February, 2016	MOE, Babil	Administrator	Director of Legal Department
	3	3, March, 2016	MOE, Babil	Administrator	Inspector in Environment Department
	4	3, March, 2016	MOE, Babil	Environmental Staff	Officer on Department of Air quality in EOM
Doctors	5	1, March, 2016	Hilla Hospital – Babil	Doctor	Doctor in Department of Respiratory Diseases
	6	7, March, 2016	Hilla Hospital – Babil	Specialised Physician	Doctor in Department of lung function
	7	24, March, 2016	Hilla Hospital – Babil	Doctor	Doctor in Department of Respiratory Diseases
	8	27, March, 2016	Hilla Hospital – Babil	Professor Doctor	Doctor in Department of Respiratory Diseases
People Affected by Air Pollution	9	2, March, 2016	Babil- AL-Musayyib	Resident I	Patient
	10	8, March, 2016.	Babil- Hilla	Resident II	Patient
	11	18,March, 2016	Babil- Hilla	Resident III	Patient
Other respondents	12	3, March, 2016	Babil	Expert and Academic Researcher	Academic Researcher/ University of Babylon
	13	7, March, 2016	Babil	Professor Doctor/ Expert in Health	Head of the Department Respiratory Diseases, Hilal

					Education Hospital
	14	15, March, 2016	College of Law, Babil	Professor of Law / Legal Expert	Academic at University of Babylon.
	15	15, March, 2016	College of Law, Babil	Legal Academic	Senior Lecturer
	16	16, March, 2016	College of Law, Babil	Professor of Administrative Law / Legal Expert	Academic at University of Babylon
	17	16, March, 2016	College of Law, Babil	Assistant Professor in Law	Academic at University of Babylon
	18	17, March, 2016	College of Law, Babil	Legal Academic	Senior Lecturer
	19	18, March, 2016	Babil	Assistant Professor/ Environmental Expert	Academic Researcher/ University of Babylon
	20	20, March, 2016	Babil	Member of NGOs	Al Noor NGO.
	21	22, March, 2016	College of Law, Babil	Professor of Law/ Legal Expert	Dean of the Faculty of Law, University of Babylon
	22	23, March, 2016	Babil- Court	Lawyer	Lawyer



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